ZASTONE

使用说明书
INSTRUCTION MANUAL

DP860
数字对讲机
Digital Two-way Radio

DIGITAL

Instruction Manual

DP860

Digital Two-way Radio

We are very grateful for your purchasing Zastone brand two-way radios produced by Zastone.
We believe Zastone two-way radio, which always incorporates the latest technology, can bring great convenience to your life and work.
We also believe that the quality and function of Zastone two-way radio can meet your demands for reliable communication.

Important Information

◆ Copyright

Zastone and our authorized partners own the intellectual property of all the parts of this product (include accessories). Any design and materials may not be modified, copied, extracted or translated without the authorization of Zastone or its authorized parities.

Due to the update or modification of the product, Zastone owns the right to change the specifications of software and hardware described in this manual without further notice. Specifications and information contained in this manual are for reference only.

◆ Safety Information

Compliance with RF Exposure Standards

Your radio is designed and tested to comply with a number of national and international standards and guidelines (listed below) regarding human exposure to radio frequency electromagnetic energy. This radio complies with the IEEE and ICNIRP exposure limits for occupational/controlled RF exposure environment at operating duty factors of up to 50% transmitting. In terms of measuring RF energy for compliance with the IEEE and ICNIRP exposure limits, your radio radiates measurable RF energy only while it is transmitting (during talking), not when it is receiving (listening) or in standby mode.

Your radio complies with the following of RF energy exposure standards and guidelines

Institute of Electrical and Electronic Engineers (IEEE) C95.1-1992

Institute of Electrical and Electronic Engineers (IEEE) C95.1-1999 Edition

International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998

◆ Operating Instructions to control RF Exposure

To decrease your exposure and ensure compliance with the occupational/controlled environment exposure limits, please always adhere to the following procedures.

1. Transmit no more than the rated duty factor of 50% of the time. To transmit, press the PTT button, and to receive the call, release the PTT button.
2. Keep your radio in a vertical position in front of the face with the microphone 5cm away from your mouth while transmit.
3. When worn on your body, keep the antenna 2.5cm away from you body while transmit.
4. Do not transmit when the radio is not equipped with an antenna. Transmitting without an antenna may damage the product and result RF discomfort.

◆ Using the designated accessories

Use the antenna, battery, adapter or charger supplied or sold by Zastone only, or otherwise it causes damage to the product.

If you want to purchase or replace the accessories, please contact your local dealer or Zastone.

◆ Area restrictions

1. To avoid of the problems caused by electromagnetic interference or electromagnetic compatibility, turn off the radio in any facilities where posted notices instruct you to do so, such as hospital and other health care facilities. Turn off the radio when on board an aircraft, if instructed to do so.

2. In the vehicle with an air bag, do not place the radio in the area over an air bag or in the air bag deployment area.

3. Turn off the radio before entering any area with a potentially explosive atmosphere or blasting caps.

4. Do not operate the radio, disassemble or charge the battery in the potentially flammable and explosive atmosphere (such as gas station, coal gas station, etc.).

5. Do not place the radio under the direct sunlight or near the area with heating devices.

6. Do not place the radio in the area with great dust, moisture or drips, or on the unstable surface.

◆ Operating Attentions

Antenna

Do not use any portable radio that has a damaged antenna. If a damaged antenna comes into contact with your skin, a minor burn can result.

Batteries

All batteries can cause property damage and/or bodily injury, such as burns, if a conductive material such as

jewelry, keys, or beaded chains touches exposed terminals. The conductive material may complete an electrical circuit (short circuit) and become quite hot. Excessive care in handling any charged battery, particular when placing it inside a pocket, purse, or other container with metal objects. To reduce the potentially damage, do not expose the battery in the fire, or disassemble and extrude the battery.

To realize the best performance of the battery, change the battery once a year.

Maintenance

Do not disassemble the radio by yourself. This product can only be maintained by the professional technicians.

Contact us or your local dealer for help if you want to re-develop or modify the radio.

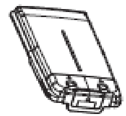
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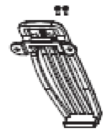
1 Unpacking and checking

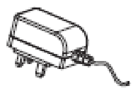
Unpack the radio carefully. We recommend that you check the radio and the supplied accessories listed in the following table before discarding the packing material. If any damage or loss has occurred during shipment, please contact the deliveryman or the dealer without delay.

ITEM	QUANTITY
Two-way radio	1
Antenna	1
Battery	1
Belt Clip	1
Charger	1
Power Adapter	1
Hand Strap	1
Instruction Manual	1


Charger


Battery


Belt Clip and Screws

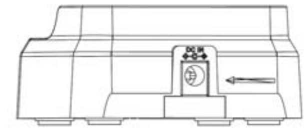

Power Adapter


Antenna

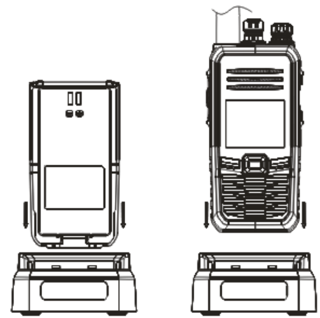

Hand Strap

2 Preparing Your Radio for Use

2.1 Charging the Battery



Plug the power adapter into an applicable AC outlet and connect the power adapter to the battery charger. The green LED lights up.



Insert the battery or the radio into the charger slot. Make sure the battery is well connected with the charger. Then the red LED lights up, it indicates that the charging starts. When the LED light green, it indicates the battery has been full charged.

Charging Notice

※ The radio’s battery is not fully charged before shipment.

Before the initial use, please charge the battery.

Charging/discharging twice or triple can let the battery capacity in the best status. When the battery is in low power, it needs to be charged or change another battery.

※ Do not recharge the battery if it has been fully charged or the radio is not in the low battery alarm

state; otherwise, it shortens the battery's life time and performance.

※ To make sure the battery can be full charged, please turn off the radio while charging.

※ Please do not put the radio in the charger when it does not need to, charging in cycle shortens the battery's life time and performance.

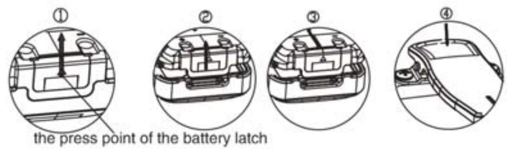
※ Please do not let the terminal of battery in short circuit or throw the battery into fire.

※ You'd better place the battery in 25℃ ambient environment. The battery is easy to lose efficiency if long stayed under -10℃ environment.

※ If the temperature is higher than 35℃ or lower than -10℃, the electro-discharge will be reduced by the Li battery's physics characters.

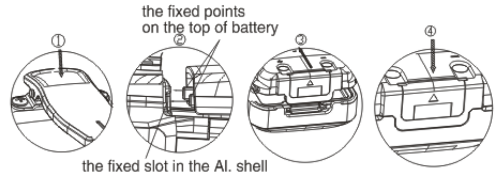
2.2 Attaching the Battery

If the belt clip is attached, press down the belt clip first; match the two grooves on the battery to that of on the radio back. Then press down the bottom of the battery until it locks.



Removing: Press down the battery latch and push backwards until it separates from the radio.

Note:
Do not short-circuit the battery or discard in the fire.
Do not disassemble the cover of the battery by your own.

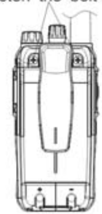


2.3 Attaching the Antenna



Hold the base of the antenna and turn the antenna clockwise into the connector on the top of the radio until secure.
Removing: Hold the base of the antenna and turn the antenna anti-clockwise and remove it.

2.4 Attaching the Belt Clip



Match the holes on the belt clip to that of on the radio; fasten it with two 2.5*6.5 screws.
To remove the belt clip, loosen the two screws.

2.5 Attaching the External Earphone



Open the cover for external equipment, and then insert the earphone plug into the jacks on the radio.

2.6 Powering on/off the Radio

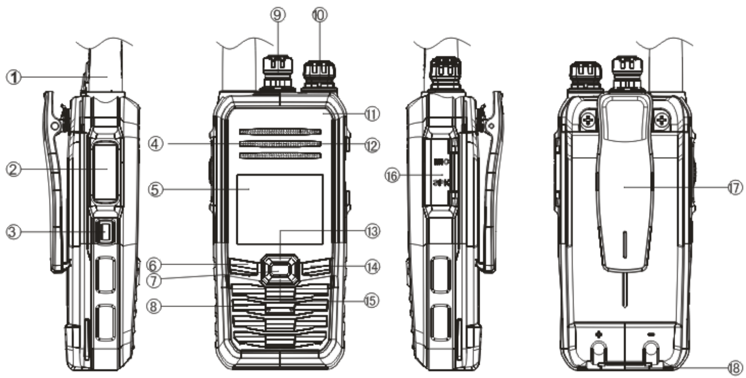
With the radio turned off, turn the On/Off/Volume Knob clockwise until you hear a click to turn on the radio; when the radio turns on, turn the On/Off/Volume Knob counterclockwise until you hear a click to turn off the radio.

2.7 Adjusting the Volume

Rotate the Volume Knob to adjust the volume.

3 Identifying Radio Controls

Radio Controls



① Antenna

② PTT Button

Press the button to make a call.

③ PF Button (programmable)

This button can be programmed with different functions by dealer, the functions of which refer to Section of Programmable button.

④ Speaker

To output voice.

⑤ LCD Display

The display indicates the radio's status. Details refer to Section of LCD display.

⑥ Menu Key

In the standby status, press this key to enter menu mode; in the menu operation status, press this key to confirm the current menu item.

⑦ OK Key

⑧ Numeric Keypad

There are 12 keys, which can be used to input call numbers, write messages or create new contact.

⑨ Channel Knob

Rotate it to select channel

⑩ On/Off/Volume Knob

Turn it clockwise to turn on the radio. Turn it counterclockwise until you hear a click to turn off the radio.

With the radio turned on, turn it to increase/decrease the volume.

⑪ LED Indicator

LED indicator lights in red when transmit signal; LED indicator lights in green when receive signal. LED indicator flashes red when the battery voltage is low.

⑫ Microphone

To input voice.

⑬ Up key

⑭ Cancel Key

In the menu operation, press this key to cancel the operation and return to the previous menu.

Connector for external equipment

Remove the cover to plug in the external speaker, microphone or other external equipments.

⑮ Down Key

⑯ Connector for External Equipment

⑰ Belt Clip

⑱ Battery Latch

3.1 Programmable Buttons

In order to facilitate your usage, you can program the following buttons as function shortcut keys by your dealer:

Name	Operation	Functions
PF button	Long/short press	See below
Menu Key	Long press	See below
Cancel Key	Long press	See below
Note: Short press: press the key and release it soon; Long press: press and hold the key for at least 2s.		

Functions programmable:

None: No feature will be assigned.

Power Level Adjust: Toggles transmit power level between high and low.

Monitor: If the current analog channel is configured with CTCSS/CDCSS, the CTCSS/CDCSS will be canceled and the radio switches to carrier squelch mode when press the key, which means if the carrier received matches with the frequency of the current channel, the radio sounds. Press the key again to return to the default setting.

Emergency Alarm On: Allows the user to set up an emergency call to seek help under the emergency condition.

Emergency Alarm Off: Allows the user to terminate an outgoing emergency call.

Squelch on/off: Turns on/off the squelch function. The weak signal can be received on the analog channel.

Squelch Level Adjust: Allows the user to set the Squelch Level. The higher squelch level is selected, the harder to receive weak signals, but the more rarely disturbed by the noise.

Scan: Turns on/off scanning function to search the communication activity on other channels.

Whisper: Turns on/off whisper function. If this function is enabled, the receiver can hear the voice from the transmitter clearly even the voice is very low.

3.2 LCD Display

Name	Icon	Descriptions
Signal Strength Indication		No signal
		Signal detected
Messages		There is unread message in the inbox.
		The inbox is full.
Scan		The radio is scanning.
Power		The transmit power of the current channel is low.
		The transmit power of the current channel is high.
Keypad Lock		Indicates that the keypad is locked.

Squelch Off		Displays when pressing the Squelch on/off shortcut key.
Emergency Alarm		The radio is in emergency alarm status (except secret alarm), or receives emergency alarm.
Battery Display		Indicates the residual capacity of the battery.
Private Call		Indicates the current number is private call number.
Group Call		Indicates the current number is group call number.
All Call		Indicates the current number is all call number.
Call Out		Indicates that the radio is transmitting signal.
Call In		Indicates that the radio is receiving signal.
Hold on the call		Indicates that the call is holding on, without the need to redial.

3.3 LED Indicators

Red LED lights on: the radio is transmitting.

Green LED lights on: the radio is receiving.

Red LED flashes: low battery, the battery needs to be charged.

4 Basic Functions

4.1 Selecting a channel

Each channel in your radio can be programmed to analog channel or digital channel. Under the Home Screen, turn the Channel Knob to select a channel.

4.2 Receiving and answering the call

(1) Receiving and answering to group call

In order to receive the group call, you must set your radio as the group member (add your radio into the group call list).

When the radio receive the group call,

a.The green LED indicator lights on

b.The group call icon , group alias or ID and incoming call icon  display on the LCD screen.

c. Keep your mouth 3~6 inches away from the microphone;

d. Press the PTT key to answer the call and the RED LED indicator lights on;

e.Wait for the Talk Permit Tone to finish（if enabled*）and speak to the MIC;

f.Release the PTT key to receive the call;

g. After the preset time (call hang time) is over, the call is over.

(2) Receiving and answering private call

Private call is a call from an individual radio to another individual radio.

When the radio receives the private call:

a. GREEN LED indicator lights on;

b. The private call icon , the caller's alias or ID and the incoming call icon display on the LCD screen;

c. Keep your mouth 3~6 inches away from the microphone;

d. Press the PTT key to answer the call and the RED LED indicator lights on;

e. Wait for the Talk Permit Tone to finish (if enabled*) and speak to the MIC;

f. Release the PTT key to receive the call;

g. After the preset time (call hang time) is over, the call is over.

(3)Receiving an all call

All call is a call from an individual radio to every radio on the channel. It is used to make important announcements requiring the user's full attention.

When the radio receives the all call:

a. GREEN LED indicator lights on;

b. The all call icon, the caller's alias or ID and the incoming call icon display on the LCD screen;

c. When the all call is finished, the radio returns to the previous screen.

(4)Receiving and answering a in analog mode

On an analog channel, press the PTT Button and speak to the MIC.

On an analog channel, when the radio receives a call, press the PTT Button to answer the call directly.

4.3 Making a call

On a digital channel, choose one of the following procedures to make a call:

a. Enter Contacts menu, select one contact and then press and hold the PTT Button, speak to the MIC.

b. Enter Call Log menu, and then enter Call Out or Call In item, select one contact, press the PTT Button and speak to the MIC.

c. Under the Home Screen, press the PTT Button and speak to the MIC. The call out number is the default contact number of this channel, which can be programmed by the dealer, or set through menu.

d. Under the Home Screen, input the number manually, then press the PTT Button and speak to the MIC.

On an analog channel, press the PTT Button and speak to the MIC.

5 Advanced Functions

Your radio also equips with the following advanced functions.

5.1 Radio Check

This function is used to check whether the radio is active in the system or not, while the checked radio user cannot detect it. Except the LED flashes, there is no audible or visual notification on the radio. The checked radio silently sends back a response to the check radio.

(1) Sending a radio check

In the standby screen, press [Menu] key to come to step c), or

Press “ Menu” key to enter the menu;

Press “Up/Down” key to select “Contacts”, and press OK to select;

Press “Up/Down” key to select the target private call contact, Or

Press “Down” key to select “Add”, and press “Options” to select. Then input the target ID with the keyboard and press “Options” to select.

Press “down” key select “Status Inquire”, and press “OK” to select.

Wait for the response.

If the target radio is active in the system, LCD displays “Ms is Valid”, or otherwise “Ms is Invalid”.

Press “Back” to return to options feature list

5.2 Radio Kill/Revive

This function allows one radio sending the signaling to kill another radio. The radio to be killed cannot display anything, make or receive calls. The radio can only revive through CPS sends a revive order. After revived, the radio can work normally again. This function is used to manage the unauthorized usage of the radio, prevent misappropriating the radio which is lost.

(1) Receiving a radio kill

When receive radio kill order and “Radio kill/decoding enabled”, the radio will automatically reply ACK (Successful), or otherwise reply ACK (Failed).

“Status of kill” display on the screen. The killed radio will not receive any information except the revive order and neglect all the keyboard input except ON/OFF key operation.

(2) Receiving a radio revive

When “Radio kill/decoding enabled” and the killed radio receives the revive order, the radio automatically replies ACK (Successful), or otherwise replay ACK (Failed).

The radio returns to the standby screen. Channel alias display on the LCD.

(3) Sending a radio kill or revive

In the standby screen, press [Menu] key to enter into menu

Press “ Menu” key to enter the menu;

Press “Up/Down” key to select “Contacts”, and press OK to select;

Press “Up/Down” key to select the target private call contact, Or

Press “Down” key to select “Add”, and press “Options” to select. Then input the target ID with the

keyboard and press “Options” to select.
Press “down” key select “kill” or “Revive”, and press “OK” to select.
Wait for the response.
If the target radio is killed in the system, LCD displays “Kill ok” or “Revive Failed, or otherwise “Kill Failed” or “Revive Failed”.
Press “Back” to return to options feature list
Note:
During when the “Radio kill/revive” order is sent out and the radio is waiting for the response, press “cancel”, the radio will terminate the order and exit “Radio kill/revive” mode.
Or
If the time to wait for the response is over, the radio will automatically exit this mode and displays “Radio kill/revive Failed”.

5.3 Emergency Alarm

If you are in danger and this function is enabled, you can press Emergency Alarm On shortcut key to send an emergency alarm.
The means of sending emergency alarm are decided by the following parameters: Alarm Type, which defines the audio and visual reaction when the radio sends an alarm; Alarm Mode, which defines the content sent to the other members when the radio sends an alarm. The above parameters can be programmed by dealer.

To turn off the Emergency Alarm, press the programmed Emergency Alarm Off shortcut key.

Alarm Type:

◆None: No alarm function (Default setting); you cannot send an emergency alarm.

◆Siren Only: The radio only emits siren locally.

◆Regular: The radio provides audio and visual indication that it is in Emergency mode and can receive the signal from others;

◆Secret: No audio and visual indication. And the radio cannot receive the signal from others;

◆Secret with voice to follow: No audio and visual indication. But the radio can receive the signal from others.

Alarm Mode:

◆Emergency Alarm: The radio sends out an emergency alarm, and then exits the emergency alarm status automatically.

◆Emergency Alarm w/ Call: An emergency alarm is sent, after which an emergency call can be transmitted by pressing the PTT Button.

◆Emergency Alarm w/ Voice to Follow: The radio sends out an emergency alarm, and then sends out background tone periodically and automatically through emergency call.

Note:

Emergency Alarm: The radio sends out a signal to alert other member.
Emergency Call: A priority call on channel, so as to make sure the successful communication under emergency condition.

5.4 Keypad Lock

If the keypad is locked, the keys have no reaction when pressing key except the PTT key, Emergency Alarm shortcut key, coding knob or the Keypad Lock key is pressed. Thus, it can avoid changing the current channel and working status unconsciously.
Long press the Keypad Lock shortcut key to lock the keypad, and long press this key or "*" key to unlock it.
You can turn on this function following these steps: "Setting" menu→"Keypad Lock" item→ select "ON".

5.5 TOT

This function forbids you from occupying the channel for a long time. If the continuous transmitting time exceeds the setting time by dealer, the radio sends out a warning tone and stops transmitting. Release the PTT key to stop the warning tone. After a period of time, which is set by dealer, you can transmit again. And if the radio is programmed with pre-alert function by the dealer, the radio will send out an alert before the time out timer expires.

5.6 Channel Scan

Press the Scan shortcut key to start scanning. During scanning, the radio checks every channel in the scan list and stops on the channel which a signal is detected.

During scan, the radio checks and stops on a busy channel. Then the radio continues scanning until the channel is not busy for a while (this time is set by dealer, which is named as Scan Hold Time).

Steps to start scanning: press the Scan shortcut key → select “Start” item. The radio scans the channels in the current scanning list one by one. During scan, press the Cancel key or scan shortcut key to stop.

Scan revert channel

During scan, press the PTT key to make the radio transmit on a default channel. The channel can be programmed by your dealer.

5.7 Messages:

Enter “Messages” menu, you can edit, send, receive, reply, forward and delete the message.

5.8 Shortcut Messages:

Enter “Messages→Shortcut Message” menu, you can edit, send, receive, reply, forward and delete the shortcut message. The content of shortcut messages is set by local dealers. Users can use

these functions under the menu prompt.

5.9 Setting operating parameters

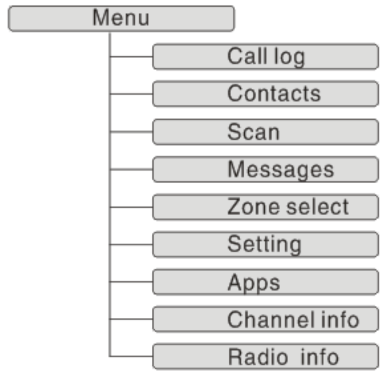
You can set the radio's operating parameters. Details refer to "Menu in Digital Mode"→

6 Identifying Menu Structures

Press the Menu Key to enter it. The menu items would be a slight difference in digital mode and in analog mode. And the items displayed can be reprogramming by your dealer.

Menu in digital mode

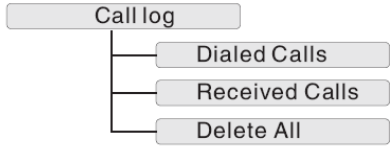
If you choose a digital channel, the main menu structure is as follows:



6.1 Call Log

Your radio is able to record the call in and call out log. If the call log is full, the earliest log will be

covered and disappeared when the new call record is saved.



Procedures:

Use the menu

1. Press the Menu Key to access the main menu.
2. Press the Up/Down Key to Call Log and press the OK Key to confirm.

Use the programmed Call Log key

1. Press the shortcut Call Log Key to enter.

6.1.1 Dialed Calls/ Received Calls

You can make a call, check the detailed information of the contact, add number, send a Status Inquire call, set the contact as the default contact, and delete the call log under these two items. If the Radio Enable or Radio Disable function is enabled by your dealer, you can also send Radio Enable or Radio Disable command to the contact.

Detailed information:

You can view the detailed information of the selected call log.

Add number:

You can add the number of the selected call log into Contact list. Only Individual Call log has this function.

Status Inquire:

You can send this command to the selected number (only private call contact) to make sure whether the radio has been powered on or is active on the current channel secretly. Only Individual Call log has this function.

Radio Disable:

You can send this command to the contact (only private call contact) to make the target radio disabled.

Radio Enable:

You can send this command to the killed radio (only private call contact) to make the target radio enabled.

Set as default contact:

The default contact is the contact number which is dialed to make a call by pressing the PTT Button directly, without the need to enter Dialed Call, Received Call or Contacts menu list. Each channel can be set one default contact. The number can be programmed by your dealer or set on your radio. Set as default contact means to set the selected number as the default contact of the current channel. Only Group Call log has this function.

Delete:

Delete the selected call logs.

6.1.2 Delete All

If you want to delete all the call logs, select Delete All item and confirm it.

6.2 Contacts

Contacts provides “address-book” capabilities on your radio. There are Add submenu and all Contacts list in this menu.

Procedures:

Use the menu

1. Press the Menu Key to access the main menu.
2. Press the Up/Down Key to Contacts and press the OK Key to confirm.

6.2.1 Contacts List

You can view the entire Contacts list through Contact menu or the Contact List shortcut key. These contacts can be edited by programming software or by inputting manually. Only the private call contact can be inputted manually.

Enter Contacts list, choose one contact, you can perform the following operations: press the PTT Button to send a call; check the detailed information; send a Status Inquire Call(only individual call contacts); set this contact as default contact; edit(only individual call contacts) or delete(only individual call contacts) contact.

If Radio Enable, Radio Disable function is enabled by your dealer; you can also send Radio Enable

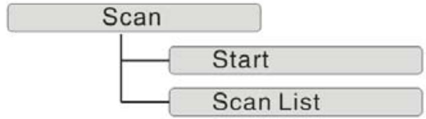
or Radio Disable command to the contact.
About the descriptions of Status Inquire, Set as default contact, Radio Enable and Radio Disable, details refer to Call Log Section. And other functions are as below:

Detailed information：
You can check the contact’s name, number, and call type.
Edit：
You can edit the contact’s name and number.
Delete:
Delete the selected contact.
New contact：
You can create an individual call contact into the contacts list. The contact number is made up of 7 digits.

6.3 Scan

Scan function helps you to receive calls from other channels, so as to supervise the activities of the personnel.
During scanning, the radio checks every channel in the scan list and stops on the channel which a signal is detected. The scanning mode is carrier-control, which has been preset by your dealer.
Carrier-control scan

During scan, the radio checks and stops on a busy channel. Then the radio continues scanning until the channel is idle for a while (this time is set by your dealer, which is named as Scan Hold Time).



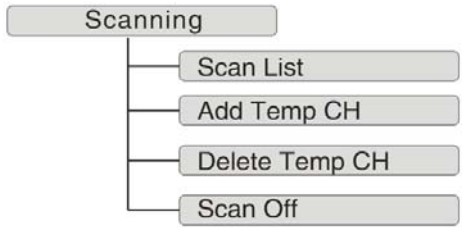
Scan revert channel

While scanning, press the PTT button to make the radio transmit on a default channel. This channel can be programmed by your dealer.

Procedures:

Use the menu

1. Press the Menu Key to access the main menu.
2. Press the Up/Down Key to Scan and press the OK Key to confirm.



Use the Scan shortcut key

1. Press the Scan shortcut key to enter.

6.3.1Starting scan

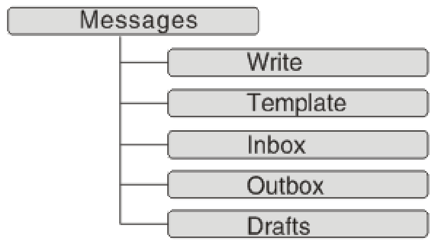
Select Start item and confirm to start scanning, and press the Cancel Key or Scan shortcut key to stop scanning.

In scanning status, press the Menu Key, the following menu will be displayed:
Add/Delete Temp Channel
During scanning, if the radio stops on an unwanted channel, such as nuisance channels, the unwanted channel can be temporarily deleted by selecting Delete Temp Channel function, and then the scan continues. And also, you can temporarily add a channel by selecting Add Temp Channel function. After existing scanning mode, the temporarily added or deleted channel is invalid. The scan list resumes its original channel.

6.3.2 Scan list

Each channel can correspond to one scan list by dealer's programming. Only the channel which is set in the Scan List item can enable scanning. Each scan list includes 16 channels at most, with both digital and analog channel. Selecting Scan List item and confirming it, check, added or delete the channels included in it.
Attention: If the channel included in the Scan List is changed, the other channels which related to the Scan List will be influenced.

6.4 Messages



Your radio is able to receive data, for example a text message, from another radio. You can reply, forward or delete the message under this menu.
Procedures:

Use the menu

1. Press the Menu Key to access the main menu.
2. Press the Up/Down Key to Messages and press the OK Key to confirm.

6.4.1 Writing a message

You can write a new message to send. The target contact can be chosen from the Contact List. The message can also be saved into Drafts, and the template message can be inserted while writing a new message.

6.4.2 Template

There are some template messages programmed by your dealer, you can send these massage directly if you like.

6.4.3 Inbox

The inbox stores the received messages. If there's a new message,  will be displayed on the home screen; if the inbox is full,  will be displayed. If the inbox is full, the earliest received messages will be covered and disappeared after receiving a new message. You can check the detailed information, reply, forward and delete the message here.

6.4.4 Outbox

The outbox stores the sent messages. If the outbox is full, the earliest sent messages will be covered and disappeared after sending a new message. You can check the detailed information,

resend, forward and delete the message here.

6.4.5 Drafts

The draft box stores the draft messages. If the draft box is full, the earliest draft messages will be covered and disappeared after saving a new draft message. You can send, edit and delete the message here.

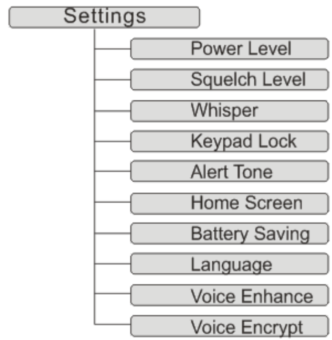
6.5 Zone select

A zone is a group of channels. You radio supports up to 16 channels and 16 zones, with a maximum of 16 channels per zone.

Procedures:

Use the menu

1. Press the Menu Key to access the main menu.
2. Press the Up/Down Key to Zone Selected and press the OK Key to confirm.



6.6 Settings

You can set your radio parameters as required, including Power, Squelch Level, Whisper, Keypad Lock, Alert Tone, Home Screen, Battery Saving, Language and voice enhancement, encryption. Settings will be different due to

different dealers.

6.6.1 Power

The channel's power can be set as High or Low. High power is useful in long distance communication, but the battery's working time will be lessened.  refers to high power,  refers to low power. Each channel's power level can be set separately.

6.6.2 Squelch level

The radio's squelch level can be set from 0 to 9. If the squelch level is higher, the radio is affected less by noise, but harder to receive weak signal. If the squelch level is lower, the radio is easier to receive weak signal, but easier affected by noise.

6.6.3 Whisper:

Whisper function can make the receiver hear clearly even if you speak in a low voice to MIC. You can set whisper function on/off here.

6.6.4 Keypad Lock

If the function is enabled, the keypad will be locked automatically. And only the PTT Button, Emergency Alarm Key and Keypad Lock shortcut key are available when the keypad is locked. You can set keypad lock function on/off here.

Procedures:

Long press the Keypad Lock Shortcut Key or * Key;

 displays on the screen, and the keypad is locked.

Repeat the above procedure to unlock the keypad.

6.6.5 Alert Tone:

You can set alert tone function on/off the alert tone here.

6.6.6 Home Screen

You can set what to display on your Home Screen, including channel number, channel frequency, channel name, zone number and zone alias.

6.6.7 Battery Saver

You can set battery saver function on/off here. This function can prolong the battery's working time when enabled.

6.6.8 Language:

You can choose Chinese or English as the working language.

6.6.9Voice Enhancement

You can turn on/off Voice Enhancement function or set the enhancement level.

6.6.10 Voice Encryption

You can turn on/off Voice Encryption of current channel.

6.7 APPs

Calculator is available under this menu.

6.8 Channel Information

You can check the current channel mode and transmit/receive frequency.

6.9 Radio Information

You can check the following information: radio ID, model type, firmware version, data version and frequency range.

6.10 Menu in analog mode

In analog channel, there are Scan, Channel Info, Settings, APPs and Radio Info in the main menu, the contents of which are the same as on digital channel. (Refer to: Menu in digital mode)
You can check the frequency and CTCSS of the current channel under Channel Info menu item.

7 Troubleshooting

No.	Problem	Causes and Solutions
1	The radio cannot be switched on or no display after being switched on.	A. The power switch is in failure. Please change it. B. The battery is out of power, please recharge it or change it.
2	The voice is low.	A. Please speak close to the microphone. The ideal distance is 3-10cm. B. Please turn the Volume Knob to increase the volume to the best.
3	Cannot transmit	A. The frequencies of both users are not the same. Please select the same frequency channel again. B. The CTCSS/DCS signals of both users are not the same. Please reset it. C. The radio is out of effective communication range.

8 Specification

General	
Frequency Range	400-470MHz/136-174MHz
Channel Capacity	256
Channel Spacing	6.25KHz/12.5KHz
Operating Temperature	-25℃~ +55℃
Operating Voltage	7.5V DC ±20%
Battery	1500mAH Li-ion
Frequency Stability	±2.5 ppm
Dimension (with battery and antenna)	116mm x54mmx30mm
Weight (with battery and antenna)	243g
Transmitter	
RF Power Output	4W/ 1W
Frequency Modulation	16KφF3E/11KφF3E (Analog) 4FSK(Digital)
Antenna Impedance	50Ω
Modulation Limiting	±2.5kHz

Radiated Spurious Emission	-36dBm < 1GHz -30dBm > 1GHz
FM Noise	45dB @ 25KHz 40dB @ 12.5KHz
Modulation Distortion	< 3%
Receiver	
Reference Sensitivity	0.25μV @12.5KHz
Adjacent Channel Selectivity	60dB @ 12.5KHz
Intermodulation	60 dB
Spurious Response Rejection	60 dB
Rated Audio Output	1W
S/N	45/40
Rated Audio Distortion	≤3%

使用说明书

DP860

数字对讲机

致用户

鸣谢！

欢迎选购本公司生产的 Zastone 牌数字对讲机。我们相信本产品将给您的生活和工作带来极大的方便。

Zastone 牌数字对讲机采用了先进的技术和精湛的工艺，我们希望本产品的质量和功能将会使您感到满意。

用户须知

◆ 请您在使用本产品之前仔细阅读本说明书，以便您能更轻松自如的操作本机。当您使用本产品时，我们认为您已经阅读了本说明书。

◆ 请妥善保存本说明书，以供日后参考或使用本产品的人均可阅读。

◆ 为了维护您的合法权益不受侵犯，请您在购买本公司产品时认真如实地填写《用户保修卡》，并索取真实有效的购买凭证。

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◆ 所有文字虽经仔细核对，难免有错漏，对此本公司保留最终解释权。

安全须知

为了您安全高效地使用本对讲机，请阅读下面的信息。

◆对讲机的维修工作只能由专业技术人员进行，请勿自行拆装对讲机。

◆为了避免电磁干扰或电磁兼容引起的问题，请在贴有“关闭对讲机”标志的场合关闭对讲机，例如医院和其他保健医疗场所，搭乘飞机时，当机组人员要求关闭对讲机时，请关闭对讲机。

◆在带有安全气囊的汽车内，请勿将对讲机放在安全气囊展开可能涉及的区域范围内。

◆在进入易燃、易爆环境前请关闭对讲机。

◆在易燃、易爆环境中请勿更换电池或对电池充电。

◆在靠近爆破区和雷电区前，请关闭对讲机。

◆请勿使用天线已损坏的对讲机，损坏了的天线接触皮肤可能导致轻微灼伤。

◆确保对讲机使用时，天线已正确安装。没有安装天线的对讲机在发射信好时，容易损坏对讲机。

◆当便携式对讲机正在发射时，保持对讲机处于垂直状态，并使话筒离开口部约 5 厘米。

◆如果您将便携式对讲机佩带在身体上，请确认对讲机在发射时，天线至少距离身体 2.5 厘米。

电　池

◆ 如果您身上的一些导电物质与暴露在外的电池端子接触的话，会对财物造成损坏，并且/或者带来诸如灼伤之类的人身损伤。这些导电材料包括珠宝，钥匙或珠状项链，它们会与电池形成回路(造成短路)，并迅速升温导致灼伤。处理已充电电池时要谨慎，尤其是将其放在口袋，钱包或其他带有金属物体的容器里时要格外谨慎。为了减少伤害的风险，电池不能暴露在火中，拆解，及挤压。

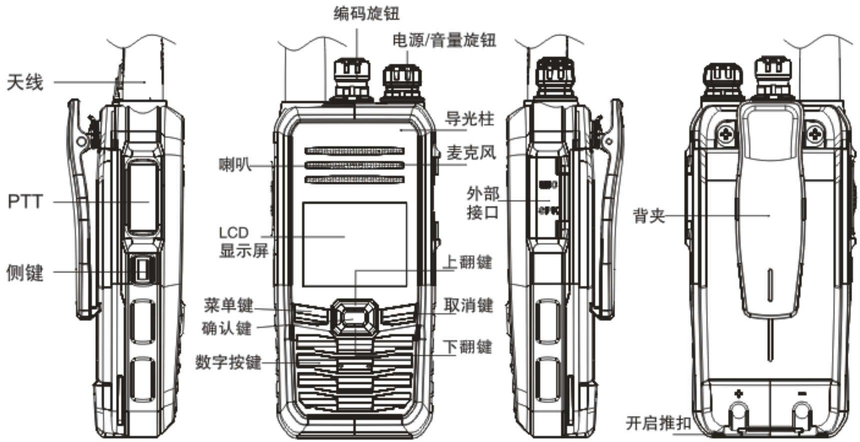
◆ 充电器的电源供应器或变压器周围的最大环境温度不能超过 40°C（104°F）。

◆ 在充电时，请将装有电池的对讲机电源关闭。在充电时使用对讲机会妨碍电池的正确充电。

◆ 当不需充电时不要将对讲机和电池插入充电器，持续的充电将缩短电池寿命。不要将充电器当作对讲机的存放座。

◆ 为达到最佳使用和安全效果,建议在使用一年后更换电池。

DP860 快速参阅


编码旋钮
电源/音量旋钮
天线
导光柱
麦克风
喇叭
PTT
外部
接口
背夹
LCD
显示屏
侧键
上翻键
菜单键
取消键
确认键
下翻键
数字按键
开启推扣

目　录

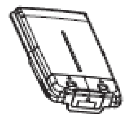
1　开箱检查

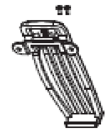
请小心打开包装盒，确认盒内是否有下表列出的物品，如果您发现本产品及其附件在搬运中有任何丢失或者损坏，请立即与您的经销商联系。

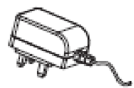
1.1 随机附件

物料	数量
对讲机	1
充电座	1
充电电源适配器	1
电池	1
皮带夹	1
天线	1
挂绳	1
合格证	1
使用说明书	1


充电座


电池


皮带夹+螺丝


充电电源适配器


天线


挂绳

2 电池信息

2.1 充电注意事项

作为选件的电池在出厂时没有进行充电，请在使用前对新的或者长时间未经使用的充电电池进行充电。充电/放电循环两三次将可以使电池容量达到最佳状态。当发现电池电力低微时，需对电池进行充电或者更换电池。

※ 请勿使电池的端子短路或将电池投入火中。

※ 电池装在对讲机上时可以充电，但需将对讲机关机，以保证电池充满。

※ 不充电时，不要把对讲机和电池留在充电器上，连续不断充电将缩短电池寿命。

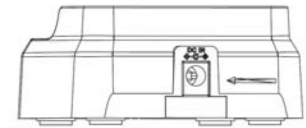
※ 不要将充满电的电池再放回到充电器上去再“加电”，因为这种操作会显著降低电池的循环使用寿命。

※ 只要有可能，电池应处于大约 25℃室内环境中，当长期温度低于零下 10℃时将电池容易失效。

※ 在温度高于 35℃或低于零下 10℃时，电池的可放电量可能会减少，这是锂电池的物理特性决定的。

2.2 电池充电

将充电电源适配器插在合适的交流电源输出插座上，将电源适配器的电缆插入充电座背面上的适配器插孔，指示灯亮绿色。

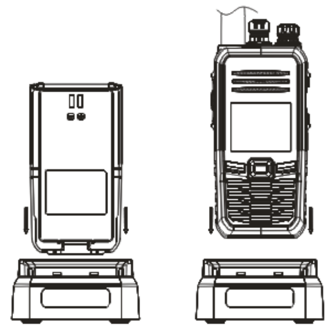


将电池或者装有电池的对讲机插到座式充电器中，确保接触良好，指示灯亮红色，充电开始。当指示灯变成绿色时，表示电池已充满电。

注意：

※出厂时，对讲机电池未充电，请在第一次使用前对电池充电。

※本公司 ZBT-860 锂电池可以在本机使用。



※在购买后或电池长时间(2 个月以上)存放后第一次充电，应反复充电几次才能达到正常电池容量，应保证电池最少每三个月充电一次。

※当电池已经完全充电或者未使用到对讲机低压告警状态，最好不要进行再充电，以免影响电池寿命和性能。电池充电后请将它从充电座上取下。

※当对讲机进入低压告警状态后，请对电池重新充电后再使用，请勿强制开机使用，以免影响电池寿命和性能。

※ZBT-860 锂电池内部有保护电路，当电量过低时会切断供电，此时在充电座上充电，指示灯不会马上亮，约 1-5 分钟后，充电指示灯会显示。

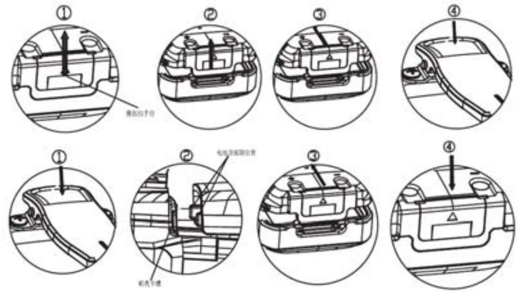
3 附件安装

3.1 卸下/安装电池

◆取下电池

取电池时确认关机

要取下电池时，如①所示，在推扣的扣手位向上拉开启推扣，电池顺势弹起如②所示，再如③所示退出电池；如带有背夹，稍微如④所示按背夹，并如图③所示退出电池。



◆安装电池

在装有背夹时如①所示按背夹上端使背夹弹起，如②所示将电池上端的两个限位骨对准对讲机铝壳相应的卡槽，并如③所示的方向推入。如④所示按电池下端，直到电池卡钩将电池锁定为止。

注意：

请勿短路电池端子或将电池丢弃于火中。

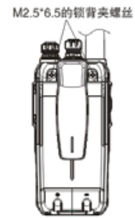
切勿擅自拆卸电池的外壳。

3.2 安装/卸下天线

安装时：将天线有螺纹的那一端插入对讲机顶部预留的螺纹孔中，沿顺时针方向直至拧紧为止。

卸下时拿住天线底部沿逆时针方向旋松。





3.3 安装/卸下皮带夹

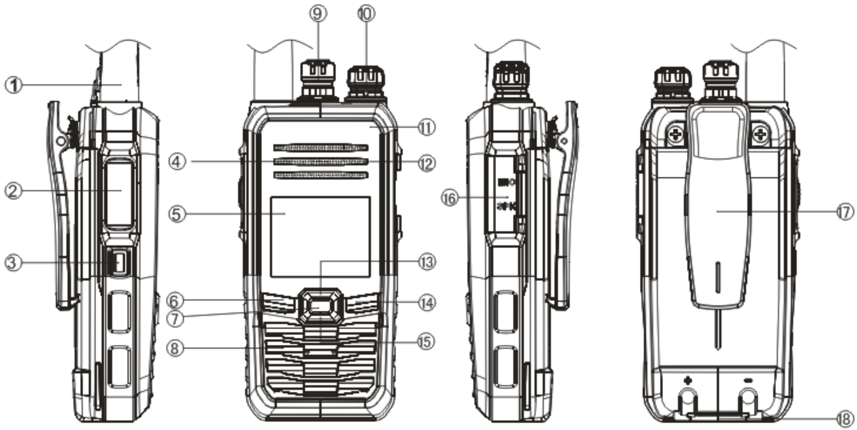
安装时，将背夹支架螺丝孔对准对讲机背面铝壳相应螺丝孔，用两颗 2.5x6.5 的机牙螺丝固定即可；松开两颗固定背夹的螺丝，即可将背夹取下。

3.4 安装另购的耳机

当要用外接耳机接听时，向外侧打开对讲机右上侧的耳机盖板，将外用的耳机线缆的插头插入此耳机接口。



4 熟悉本机



①天线

②PTT

按住此键发起呼叫并通话。

③侧键

该按键可以通过经销商编程设置为不同功能，有关这些功能的详细内容，可以参见“可编程键”章节。

④喇叭

输出话音

⑤ LCD 显示屏

指示对讲机的操作状态。可参见后面“LCD 显示屏”章节。

⑥菜单键

在待机状态下按此键进入菜单，在进行菜单操作时,按此键可以确定当前选项。

⑦确认键

⑧数字键盘

一共有 12 个按键，按这些键可以输入要呼叫的号码，编辑短信内容或者编辑新联系人。

⑨编码旋钮

旋转选择 1—16 信道。

⑩电源/音量旋钮

顺时针转动打开对讲机电源。要关闭对讲机电源时，逆时针转动直到出现喀哒声。

开机状态下，转动时可调节音量

⑪导光柱

发射信号时亮红灯，接收到信号时亮绿灯。电池电量不足时红灯会闪烁。

⑫麦克风

输入话音

⑬上翻键

⑭取消键

在进行菜单操作时，按此键可以取消操作并回退到上级菜单。

⑮下翻键

⑯外部接口

打开盖板可接插外扬声器和麦克风，外接设备的接口。

⑰背夹

⑱开启推扣

5 可编程按键

为了方便用户按自己的习惯操作对讲机，本机的以下按键可以通过经销商编程设置为功能快捷键：

长按健、短按键功能都可编程设置的有：PF 键。

长按健功能可编程设置的有：菜单键、取消键。

备注：

短按：按下并快速松开。

长按：按下并保持 2 秒后才松开。

可供选择的功能有：

无功能：按此键对讲机无任何反应。

待机界面：在菜单状态下直接回到待机界面。

功率级别调整：切换高/低功率。

通话记录：直接进入通话记录菜单。

监听：如果当前模拟信道带有亚音频，按下该键切换到载波静噪模式，即取消亚音频功能，载波匹配时就输出声音，再次按键回到最初状态。

紧急报警打开：启动紧急报警功能，用来紧急情况下寻求帮助。

紧急报警关闭：结束紧急报警功能。

键盘锁：用来切换键盘锁定/解锁状态。键盘锁定时只有按“PTT 键”和“紧急报警”快捷键对讲机才有反应。

静噪打开 / 关闭：打开/关闭静噪功能，可用于收听模拟信道上的微弱信号。

静噪级别调整：调整接收信号时所需要的信号强度。

联系列表：直接进入“联系人列表”界面，快速选择需要联系的号码。

扫描：收听其他信道上的通信活动，按该键开启/关闭扫描功能。

噪声信道临时删除：扫描时暂时删除不感兴趣的活动信道。

遥毙：使对方的对讲机不能使用。

激活：使被遥毙的对讲机重新可以使用。

耳语：打开关闭耳语功能，耳语使通话时小声对着麦克风讲话，对方也能听得清楚。

电池电量显示：显示电池剩余电量。

区域上调：切换到上一个区域。

区域下调：切换到下一个区域。

6 LCD 显示屏

信号强度指示		无信号。
		有信号。
消息图标		有未读短消息时显示。
		收件箱存储空间已满。
扫描图标		对讲机处于扫描状态。

发射功率图标		正在使用的信道功率为低功率。
		正在使用的信道功率为高功率。
键盘锁定图标		键盘被锁定时显示
静噪关闭图标		通过按“静噪打开 / 关闭”快捷键打开喇叭时出现。
紧急报警图标		对讲机处于紧急报警状态（秘密报警除外）或接收到紧急报警。
电池电量		表示的电池电量依次增多。
个呼图标		当前号码是个呼号码。
组呼图标		当前号码是组呼号码。
全呼图标		当前号码是全呼号码。
呼出图标		本机正在发送信号。
呼入图标		本机正在接收信号。
呼叫保持图标		呼叫保持状态，不需重新拨号。

7 LED 指示

发射时，红灯亮。

接收到信号时，绿灯亮。

在电池电量低，需要进行充电时闪烁红灯。

8 基本操作

8.1 打开/关闭对讲机

当对讲机处在关机状态，顺时针旋转音量旋钮直到听到“啪”的机械声进行开机，当对讲机处在开机状态，逆时针旋转音量旋钮直到听到“啪”的机械声进行关机。

8.2 选择信道

在待机界面下旋转编码旋钮来选择信道 。

8.3 调整音量

通过旋转“音量旋钮”来调整音量。

8.4 发起呼叫

使用数字信道时，采用以下方法之一选择呼叫对象并发起呼叫:

通过进入“联系人”菜单选择需要呼叫的联系人,然后按住“PTT 键”，对着麦克风讲话。

通过进入“通话记录”菜单的下一级菜单项“拨出通话”或者“接入通话”菜单项选择需要呼叫的联系人,然后然后按住“PTT 键”，对着麦克风讲话。

在待机界面下直接按住“PTT 键”，对着麦克风讲话，此时呼出号码是当前信道的默认联系人号码，该号码可由经销商编程设置，也可在菜单中设置。

在待机界面下手动输入呼叫对象的号码然后按住“PTT 键”，对着麦克风讲话。

使用模拟信道时，直接按住“PTT 键”，对着麦克风讲话。

8.5 接收

对讲机接收到本信道的射频信号时，会在 LCD 上对信号强度进行指示。当使用信道是数字信道时，收到该信道上呼叫本机的个呼、组呼或者全呼，对讲机将输出该信道上的话音。当使用信道是模拟信道，收到该信道上模拟信号呼叫，且呼叫信号的亚音频和本机该信道上设置的亚音频匹配，或者本机该信

道没有设置亚音频，对讲机将输出该信道上的话音。

8.6 回复呼叫

使用数字信道时，接收到呼叫后，在呼叫保持时间内直接按住“PTT 键”可发送回呼。如果没在呼叫保持时间内进行回呼则需要重新发起呼叫。呼叫保持时间可由经销商编程设置。

使用模拟信道时，接收到呼叫后，直接按住“PTT 键”对着麦克风讲话进行回复。

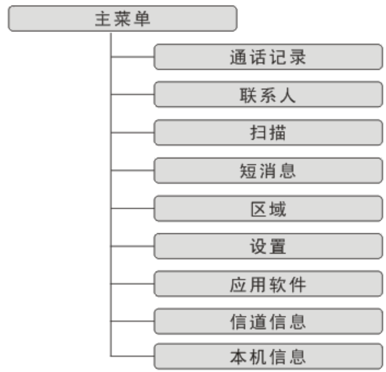
9 菜单

按“菜单键”进入菜单，根据您正在使用的信道是数字信道还是模拟信道，可供使用的菜单项会有所不同。另外通过经销商编程设置，可以控制部分菜单项是否出现。

9.1 数字模式菜单

如果使用的是数字信道，有以下菜单项可供使用：

主菜单框架图如下



◆ 通话记录

要进入此菜单，按“菜单键”进入主菜单后选择“通话记录”菜单项、或按“通话记录”快捷键直接进入“通话记录”菜单。

本机可记录拨出、接入通话记录。当通话记录已满时，若有新的通话记录，则最早的记录将自动被覆盖。

进入“拨出通话”或者“接入通话”列表，选择一条记录后，可进行如下操作：按住“PTT 键”进行呼叫、查看详情、添加联系人、发出状态查询呼叫、设置为默认联系人、删除，如果通过经销商设置开启了遥毙、激活功能，还可以对该记录的号码发起这两种呼叫。



要删除所有拨出、接入通话记录，选择“通话记录”菜单下的“删除全部”菜单项。

1）详情：

您可查看该记录的详细信息。

2）添加联系人：

您可将选中的通话记录号码添加至联系人列表。只有单呼通话记录才有该项。

3）状态查询：

您可在不干扰对方的情况下，对某个联系人（仅个呼联系人）发起状态查询，以确认对方是否开机或

在当前信道使用。只有单呼通话记录才有该项。

4）遥毙：

您可向某个联系人（仅个呼联系人）发送遥毙命令，使该对讲机无法正常使用。

5）激活：

您可向某个联系人（仅个呼联系人）发送激活命令，使该对讲机恢复正常使用。

6）设为默认联系人：

默认联系人就是在非“拨出通话”、“接入通话”、以及联系人列表界面下，按下“PTT 键”可以快速发起对该联系人的呼叫请求的号码，每个信道可有一个默认联系人，该号码可由经销商编程设置，也可在菜单中设置。设为默认联系人就是将该通话记录号码作为本信道的默认联系人。只有组呼通话记录才有该项。

7）删除：

删除该条呼叫记录。

◆ 联系人：

要进入此菜单，按“菜单”键进入主菜单后选择并确认“联系人”菜单项。该菜单下有“新建联系人”子菜单和已输入联系人的列表。

1）联系人列表：

您可从“联系人”菜单进入“联系人列表”，或按“联系人列表”快捷键快速进入“联系人列表”。编辑联系人列表可以通过经销商编程输入或者直接手动输入，但手动输入只能输入个呼联系人。

进入“联系人列表”，选择一条记录后，可进行如下操作：按住“PTT 键”呼叫该号码、查看详情、发出状态查询呼叫（仅个呼联系人）、设为默认联系人、编辑（仅个呼联系人）、删除（仅个呼联系人），如果通过经销商设置开启了遨毙、激活功能，还可以对该联系人发起这两种呼叫。关于状态查询、设为默认联系人、遨毙、激活这些功能的解释可以参考“通话记录”部分。其余功能说明如下：

2）详情：

您可查看该联系人的名称、号码、呼叫类型等信息。

3）编辑：

您可编辑选中联系人的名称、号码、呼叫类型。

4）删除：

删除该条联系人记录。

5）新建联系人：

您可创建新个呼联系人至联系人列表。输入的联系人号码最多为 7 位数字。

◆ **扫描**



要进入此菜单，按“菜单”键进入主菜单后选择“扫描”菜单

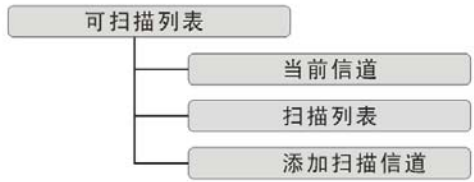
项。

1）打开扫描：

扫描功能可帮助您收听其他信道上的通信活动，从而了解相关人员当前的活动状况。您可通过此菜单来开启扫描。要退出扫描，直接按"取消键"即可。

2）扫描列表：

每个信道通过经销商编程设置可关联一个"扫描列表"，只有在关联了"扫描列表"的信道上才可以启动扫描，每个"扫描列表"最多包含 16 个信道（包括当前信道），其中可以既包含数字信道也包含模拟信道。通过选择"扫描列表"菜单项可以查看当前信道使用的"扫描列表"包含的可扫描信道，也可以为该"扫描列表"添加可扫描信道。但请注意：改变了该"信道列表"的可扫描信道，会影响到在其它同样关联了该"扫描列表"的信道上启动扫描时可扫描的信道。



启动扫描后，按"菜单键"启动选项功能时，会显示如右图所示菜单：

◆ 临时添加/删除信道：

在扫描过程中，当扫描在一个不需要的信道上停止时，例如干扰信道，可以选择"临时删除信道"菜单

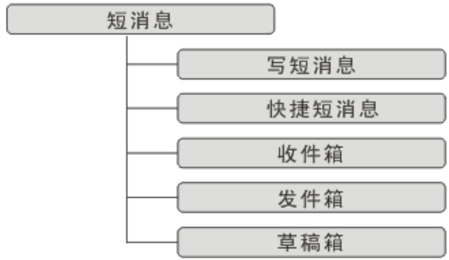
项并确定来删除此不需要的信道，扫描继续。如果用户需要向扫描队列中临时添加一个信道时，可以在扫描过程中，选择“临时添加信道”菜单项并确定，然后选择需要添加的信道。

在退出扫描模式后，临时删除或添加的信道将无效。

◆ **短消息**

要进入此菜单，按“菜单键”进入主菜单后选择“短消息”。

1）写短消息：



您可通过此菜单编辑新的短消息进行发送、或者保存到草稿箱，发送联系人可在菜单中选择。编辑短消息时可以插入快捷短信内容。

快捷短信：

此菜单中存有经销商为您设置的快捷短信，您可选择任意一条直接发送。

2）收件箱：

本机可存储已接收的短消息。若收到新短消息，待机界面会显示图标。若收件箱已满，则显示图标，这时如果收到新的短消息，则最早的短消息将自动被覆盖。您可对任一短消息进行如下操作：查看详情、回复、转发、删除。要删除收件箱中的所有短消息，请选择“收件箱->收件箱列表->详情->删除全部”。

3）发件箱：

本机可存储已发送的短消息。当发件箱已满时，如有新的已发短消息，则最早的短消息将自动被覆盖。您可对任一短消息进行如下操作：查看详情、重发、转发、删除。要删除发件箱中的所有短消息，选择“发件箱->发件箱列表->详情->删除全部”。

4）草稿箱：

本机可存储草稿消息。当草稿箱已满时，如有新的草稿消息，则最早的草稿消息将自动被覆盖。您可对任一条草稿消息进行如下操作：发送、编辑、删除。要删除草稿箱中的所有草稿消息，选择“短消息->草稿箱->详情->删除全部”。

◆ 区域

一组可使用的通话信道组成一个区域，通过此菜单，您可以选择您所需的区域。

◆ 设置

您可以根据自己的习惯和需要来设置对讲机的工作参数，使其最佳适合您的使用。这些参数包括功率、静噪级别、耳语、自动键盘锁，提示音、主界面显示、省电模式、语言、语音增强、语音加密。相应的可设置项根据经销商的设置会有所不同。

1）功率：

您可以通过这项菜单设置当前正使用信道的功率高低。高功率可以使您与距离较远的用户通信，但电

池使用时间会变短。LCD 待机界面上显示H图标表示高功率，显示L图标表示低功率。每个信道的功率级别可分别设置。

2）静噪级别：

您可在此菜单设置对讲机的静噪级别为 0 到 9 级，级别越高，对讲机受到噪声或其他无关信号的干扰越小，但越不容易接收到微弱信号，噪声级别越低，越容易接收到微弱信号，但越容易受到噪声或其他无关信号的干扰。

3）耳语：

您可在此菜单打开/关闭耳语功能，耳语功能使通话时小声对着麦克风讲话，对方也能听得清楚。通过“耳语”快捷键也能打开/关闭耳语功能。

4）自动键盘锁：

您可在此菜单开启/关闭自动键盘锁。

自动键盘锁开启时，如果对讲机无按键操作一段时间后，对讲机自动锁定键盘、这时只有按“PTT 键”、“紧急报警”快捷键和“键盘锁”快捷键对讲机有反应。

5）提示音

开启或者关闭各种提示音。

6）主界面显示：

设置对讲机待机时的主界面是显示信道号、信道频率、信道名称、区域号还是区域别名等。

7）省电模式：

设置是否开启省电模式，省电模式可延长对讲机电池使用时间。

8）语言：

选择对讲机人机界面提示语言是简体中文还是英语。

9）语音增强

可开启/关闭语音增强功能及设置相应的增强等级。

10）语音加密

可开启/关闭当前信道的语音加密功能。

◆ 应用软件

该菜单下有计算器应用软件功能提供使用。

◆ 信道信息

可查看当前信道的模式及发射接收频率。

◆ 本机信息

可以查看本机的相关信息，比如本机号码、本机机型、频率范围、序列号、硬件版本、固件版本、数据版本、应用版本、最后编程时间。

9.2 模拟模式菜单

如果您当前使用的信道是模拟信道，可供使用的主菜单有扫描、区域、设置、应用软件、信道信息、本机信息。其中扫描、设置、本机信息几项菜单和使用数字信道时对应的同名菜单一样，请参见前文《数字模式菜单》部分。查看信道信息可以用来查看当前信道所使用频率和亚音频。

10 功能与操作

10.1键盘锁定

键盘锁定时，除按“PTT 键”、“紧急报警”快捷键、“编码旋钮”和“键盘锁”快捷键有反应外，按其他的键将无效。

要使对讲机进入键盘锁定状态，只需长按“键盘锁”快捷键即可，再次长按“键盘锁”快捷键或者“＊”键，便可解锁。

另外用户可以进入“设置”菜单下的“自动键盘锁”菜单项开启“自动键盘锁”功能，这样如果用户无操作一段时间后（具体由经销商设置），对讲机将自动进入键盘锁定状态，长按“键盘锁”快捷键可解锁。

10.2超时禁发

此功能可防止用户过久地占用信道。如果连续发射时间超过经销商编程设定的时间，对讲机则会停止发射并且响警告音。若要停止警告音，请松开“PTT 键”。如需再次发射，请间隔一段时间后（具体由

经销商设置）再次按住“PTT 键”。若经销商编程设定了预警告功能，则在超时禁发所设定时间快到前给出预告警提示，告诉您发射即将被禁止。

10.3信道扫描

信道扫描可以搜索有信号的信道，当被扫描的信道上有信号时，对讲机将停在该信道上以便您对话。根据贵地经销商的编程设定，有不同的扫描再启动方式。扫描方式为载波控制扫描。

◆载波控制扫描

对讲机的扫描停留在一个繁忙信道上直至该信道不再处于繁忙状态。然后经过一段延时（具体时间由贵地经销商设定）自动恢复扫描。

通过按“扫描”快捷键或者进入“扫描”菜单项选择“打开扫描”菜单项并确定，对讲机便对当前信道所对应的扫描列表进行扫描，当对讲机处在扫描状态时，按“取消键”或“扫描”快捷键对讲机将停止扫描。

◆扫描回复信道：

当对讲机正在扫描时，按下“PTT 键”可以使对讲机在一预设信道发射、对话，此信道通过贵地经销商编程设置。

10.4短消息

进入“短消息”菜单，可以进行短信的编辑，发送，接收、回复、转发、删除等功能。用户可以在菜单的提示下使用这些功能。

10.5快捷短消息

进入“短消息->快捷短信”菜单，可以进行快捷短信的发送。快捷短信的接收、回复、转发、删除等功能和一般短信的操作方法一样。快捷短信的内容由贵地经销商编程设定，用户可以在菜单的提示下使用这些功能。

10.6遥毙、激活

如果经销商设置开放了该功能，则可以通过向其他对讲机发送遨毙信号使其不能正常使用，只能接收激活信号，不能发送和接收其它任何信号。激活信号是使被遨毙的对讲机恢复正常功能。遨毙主要在对讲机丢失或者受到其他对讲机干扰时使用。发送遥毙、激活信号的方法请见“数字模式菜单-〉通话记录”和“数字模式菜单-〉联系人”章节。

10.7紧急报警

当遇到紧急情况，可以按“紧急报警打开”快捷键进行报警呼救。报警方式由以下两部分组成：报警类型，主要用来规定本机在报警时的声光反应。报警模式：主要用来规定报警时向其他成员发送的内容。

您可以通过经销商编程设置这些参数，以便最佳适合您的需要。要关闭紧急报警，请按“紧急报警关闭”快捷键。

报警类型：

1）无：无报警功能（默认），此时不能通过按键启动报警。

2）仅鸣笛：仅在本机发出警笛声音。

3）常规：有进入报警状态声光提示，能接收其他成员回复。

4）秘密：无报警声光,且不接收其他成员回复。

5）秘密有语音：无报警声光,但接收其他成员回复。

报警模式：

1）紧急警报：报警启动后，主机仅发送紧急警报。之后自动退出报警状态。

2）紧急警报+紧急呼叫：主机发送紧急警报，然后可以通过按“PTT 键”发送紧急呼叫。

3）紧急警报+背景音自动发送：主机发送紧急警报，然后自动周期性以紧急呼叫方式发送背景音。

备注：

紧急警报：对讲机发送的一种非语音信号，用来触发其他成员对讲机发出报警提示。

紧急呼叫：比一般呼叫更优先抢占信道的通话模式，以便更能保证紧急情况时的顺利通话。

10.8工作特性设置

您可以根据自己的需要设置对讲机的一些工作特性参数，详见“数字模式菜单-〉设置”章节。

11　常见故障现象和排除方法

序号	故障现象	故障原因及排除方法
1	不开机	A、电池没电：请在专用充电器上充满电再试或更换新电池； B、音量开关不良：请到指定维修站修理；
2	对讲声音小	A、说话时离机器的麦克风太远：最佳距离为 3-10cm B、音量设置不对：将音量开关顺时针旋转，增大音量；
3	不能对讲	A、信道参数设置不正确：重新设置参数再试； B、身份信息不正确：请选择正确的对象再试； C、超过了机器的通话距离；

12　主要技术指标

产品型号	DP860
频率	400~470MHz
射频功率	4W
发射杂波和谐波	≤-70dB
频率稳定度	±2.5ppm
最大频偏	±2.5 KHz
接收灵敏度	-121dBm
信道选择	≥60dB
互调	≥60dB
最大音频功率	1W16Ω
信道数量	16 个区*16 个信道
电源	DC7.4V

外形尺寸（高 X 宽 X 厚）	116mm x54mmx28mm
重量	约 240g（含电池和天线，背夹）
工作温度:	-25℃至+55℃

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